

Pennsylvania's Common Core

Mathematics

The common core standards are designed to provide students, teachers, and parents with a clear and consistent understanding of what students are expected to learn to be successful in college and the career world.

~[Common Core State Standards Initiative](#)

Comparison of Content

The goal is to teach fewer "big" ideas each year, with the intent of mastery.

Pennsylvania Academic Standards	National Common Core
<ul style="list-style-type: none">Numbers, Number Systems & Number RelationshipsComputation & EstimationMeasurement & EstimationMathematical Reasoning & ConnectionsMathematic Problem Solving & CommunicationStatistics & Data AnalysisProbability & PredictionAlgebra & FunctionsGeometryTrigonometryConcepts of Calculus	<ul style="list-style-type: none">Number and QuantityAlgebraFunctionsModelingGeometryStatistics and Probability

"Common Core is about DOING mathematics, not merely studying mathematics."

~Dr. Jim Bohan



Helpful Web Resources

[PARCC](#)

[Smarter Balanced](#)

[Common Core State Standards Initiative](#)

[PDE Common Core](#)

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The Common Core: Two Sets of Standards

Standards for Mathematical Practice	Standards for Mathematical Content
<ul style="list-style-type: none">Make sense of problems and persevere in solving them.Reason abstractly and quantitatively.Construct viable arguments and critique the reasoning of others.Model with mathematics.Use appropriate tools strategically.Attend to precision.Look for and make use of structure.Look for and express regularity in repeated reasoning.	<ul style="list-style-type: none">2.1 Numbers and Operations2.2 Algebraic Concepts2.3 Geometry2.4 Measurement, Data, and Probability

Designing Instruction

- Common Core content should reflect the [six shifts](#) in math.
- Students should operate at Depth of Knowledge ([DOK](#)) levels of 2 and 3.
- Students should use several mathematical practices routinely.
- Follow PDE's [Standards and Progression](#) timeline.
- Develop curriculum mapping / pacing charts.

Developed based on IU8 seminar presented by Dr. Jim Bohan, Ed.D.

Assessment Timeline

Spring 2013 / Spring 2014

Grades 3-8 → PSSA

Keystone Algebra 1

Spring 2015

Grades 3-8 → PSSA CC

Keystone Dual Purpose

Administrators:

4. Systemic Improvement

Educational Administrators provide digital-age leadership and management to continuously improve the organization through the effective use of information and technology resources.

- a. lead purposeful change to maximize the achievement of learning goals through the appropriate use of technology and media-rich resources
- c. recruit and retain highly competent personnel who use technology creatively and proficiently to advance academic and operational goals
- e. establish and maintain a robust infrastructure for technology including integrated, interoperable technology systems to support management, operations, teaching, and learning

Teachers:

1. Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

- a. promote, support, and model creative and innovative thinking and inventiveness

3. Model Digital-Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society

- c. communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats